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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

	Application No.	Applicant(s)
Office Action Summary	10/632,767	GRIGOROVITCH ET AL.
	Examiner	**Art Unit**	
	Christopher Biagini	2442	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *27 April 2009*.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-36* is/are pending in the application.
    4a) Of the above claim(s) *26-35* is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1-25 and 36* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *01 August 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of Group I (claims 1-25 and 36) in the reply filed on

April 27, 2009 is acknowledged. The traversal is on the ground(s) that the inventions are not

patentably distinct. This is not found persuasive because applicant has not submitted evidence or

identified such evidence now of record showing the inventions to be obvious variants or clearly

admitted on the record that this is the case. Furthermore, although both groups may broadly

recite various "storing" steps, the restriction remains proper because Groups I and II are related

as subcombinations usable together, and Group I has separate utility such as receiving media

streams in a system that does not use header pages. Additionally, there would be a serious search

and examination burden if restriction were not required because the inventions have acquired a

separate status in the art in view of their different classification.

This requirement is therefore made FINAL. Accordingly, claims 26-35 are withdrawn

from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected

invention, there being no allowable generic or linking claim.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine
grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or
improper timewise extension of the "right to exclude" granted by a patent and to prevent possible
harassment by multiple assignees.   A nonstatutory obviousness-type double patenting rejection
is appropriate where the conflicting claims are not identical, but at least one examined
application claim is not patentably distinct from the reference claim(s) because the examined
application claim is either anticipated by, or would have been obvious over, the reference
claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re*

Goodman, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-4, 11-13, 17, 21, 25, and 26 are rejected on the ground of nonstatutory

obviousness-type double patenting as being unpatentable over claims 1-18 of copending U.S.

Patent No. 6,637,031 ("Chou"). Although the conflicting claims are not identical, they are not

patentably distinct from each other because the instant claims are anticipated by or obvious over

the patented claims. For example, in claim 1, Chou claims receiving a plurality of temporally

non-contiguous portions of a streaming media file (i.e., the first instant of a lower quality data

stream and the last instant of a higher-quality data stream, the portions being non-contiguous in

that they are separated by the intervening remainder of the stream), at least a first and second of

the non-contiguous portions being encoded at different bit rates (i.e., at a lower quality and a

higher quality); and storing the plurality of temporally non-contiguous in a single cache file (a

buffer).

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 11 and 14-25 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

Claims 11 and 14-20 are directed to a system comprising various modules. The paragraph

spanning pages 26-27 of the instant specification provides evidence that the term "module" is

intended to encompass computer software. Computer software, absent *structurally* and

functionally interrelated computer-readable media or computer components, is not statutory

subject matter.

Claims 21-25 are directed to a "computer-readable medium" comprising software. Pages

27-28 of the instant specification provides evidence that the term "computer-readable medium"

is intended to encompass intangible media, such as carrier waves. Since carrier waves are

incapable of being *structurally* interrelated to the computer software, the claims encompass

embodiments which are not statutory.

See MPEP 2106.01.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed
in the United States before the invention by the applicant for patent or (2) a patent granted on an application for
patent by another filed in the United States before the invention by the applicant for patent, except that an

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3, 7, 11, 13, 17, 21, 25, and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Chou (US Patent No. 6,637,031).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131.

Regarding claim 1, Chou shows a method comprising:

receiving a plurality of temporally non-contiguous portions of a streaming media file (comprising the first instant of a low quality stream and the last instant of a high quality stream: see col. 3, lines 35-51), at least a first and a second of the non-contiguous portions being encoded at different bit rates (see col. 3, lines 29-32);

and storing the plurality of temporally non-contiguous portions in a single cache file (comprising a buffer: see col. 3, lines 38-51).

Regarding claim 2, Chou shows the limitations of claim 1 as applied above, and further shows wherein the first and second non-contiguous portions comprise video data (see col. 7, lines 9-15).

Regarding claim 3, Chou shows the limitations of claim 1 as applied above, and further

shows wherein the first and second non-contiguous portions comprise video data and wherein a

third non-contiguous portion comprises audio data (see col. 7, lines 9-15 and col. 6, lines 61-64).

Regarding claim 7, Chou shows a method comprising: creating a plurality of media cache

streams, each media cache stream being associated with a unique bit rate (comprising a low

resolution stream and a high resolution stream: see col. 3, lines 30-33); receiving a plurality of

portions of a streaming media file, each portion being associated with a unique temporal section

of the streaming media file (comprising the first instant of a low quality stream and the last

instant of a high quality stream: see col. 3, lines 35-51); storing each portion in a media cache

segment of a media cache stream associated with a bit rate at which the portion was encoded, at

least two of the portions being stored in media cache segments in different media cache streams

(comprising the segment which stores the low quality stream and the segment which stores the

high quality stream); storing each of the media cache streams in a single cache file (comprising a

buffer: see col. 3, lines 38-51).

Claims 11 and 12 correspond to claims 1 and 4 and are rejected for the reasons given

above.

Regarding claim 13, Chou shows the limitations of claim 11 as applied above, and further

shows further comprising: a processor; and wherein the caching module comprises processor

executable code (see col. 5, lines 1-56).

Regarding claim 17, Chou shows the limitations of claim 11 as applied above, and further

shows wherein the two or more of the plurality of temporally non-contiguous portions include a

first video portion encoded at a first bit rate, a second video portion encoded at a second bit rate

(comprising a low resolution stream and a high resolution stream: see col. 3, lines 30-33), and an

audio portion (see col. 7, lines 9-15 and col. 6, lines 61-64), and wherein the first video portion,

the second video portion, and the audio portion are stored in different media cache streams (see

col. 3, lines 30-33).

Claim 21 corresponds to claim 1 and is rejected for the reasons given above.

Regarding claim 25, Chou shows the limitations of claim 21 as applied above, and further

shows wherein the act of storing comprises: storing each of the temporally non-contiguous

portions in at least two byte cache segments (comprising the data format of the buffer); and

storing the byte cache segments in the cache file (comprising a buffer: see col. 3, lines 38-51).

Claim 36 corresponds to claim 1 and is rejected for the reasons given above.

Claims 1-4, 11-13, 21, 25, and 36 are rejected under 35 U.S.C. 102(e) as being

anticipated by Lee (US Patent No. 7,028,096).

Regarding claim 1, Lee shows a method comprising: receiving a plurality of temporally

non-contiguous portions of a streaming media file (see col. 3, line 67 to col. 4, line 6; col. 8, line

59 to col. 9, line 15; and Fig. 3A), at least a first and a second of the non-contiguous portions

being encoded at different bit rates (comprising a first instant encoded at a first bit rate and a

second, later instant encoded at a different, "varied" bit rate, in a variable bit rate stream: see col.

3, lines 24-28 and col. 10, lines 13-15); and

storing the plurality of temporally non-contiguous portions in a single cache file

(comprising a cache: see Fig. 2 and col. 10, lines 32-36).

Regarding claim 2, Lee shows the limitations of claim 1 as applied above, and further

shows wherein the first and second non-contiguous portions comprise video data (see col. 5,

lines 45-49 and col. 7, lines 55-58).

Regarding claim 3, Lee shows the limitations of claim 1 as applied above, and further

shows wherein the first and second non-contiguous portions comprise video data and wherein a

third non-contiguous portion comprises audio data (see col. 5, lines 45-49 and col. 7, lines 55-

58).

Regarding claim 4, Lee shows the limitations of claim 1 as applied above, and further

shows wherein the cache file is stored in non-volatile memory (comprising a disk drive: see col.

10, lines 32-36).

Regarding claim 11, Lee shows a system comprising: a data storage module (comprising

a disk drive storing a cache: see col. 10, lines 32-36); a caching module operable to receive and

store a plurality of temporally non-contiguous portions of a streaming media file in a cache file

in the data storage module (see col. 3, line 67 to col. 4, line 6; col. 8, line 59 to col. 9, line 15;

and Fig. 3A), two or more of the plurality of temporally non-contiguous portions being encoded

at different bit rates (comprising a first instant encoded at a first bit rate and a second, later

instant encoded at a different, "varied" bit rate, in a variable bit rate stream: see col. 3, lines 24-

28 and col. 10, lines 13-15).

Regarding claim 12, Lee shows the limitations of claim 11 as applied above, and further

shows wherein the data storage module comprises a non-volatile data storage device (note that a

disk drive is a non-volatile data storage device).

Regarding claim 13, Lee shows the limitations of claim 11 as applied above, and further

shows a processor; and wherein the caching module comprises processor executable code (see

Fig. 6).

Regarding claim 21, Lee shows a computer-readable medium having computer-executable instructions for performing acts comprising: storing at a client (comprising a proxy server, which is a client in that it requests data from a central video server: see col. 8, lines 59-63) a plurality of temporally non-contiguous portions of a streaming media file received from a streaming media source in a cache file (see col. 3, line 67 to col. 4, line 6; col. 8, line 59 to col. 9, line 15; and Fig. 3A), each of the plurality of temporally non-contiguous portions being encoded at a different bit rate (comprising a first instant encoded at a first bit rate and a second, later instant encoded at a different, "varied" bit rate, in a variable bit rate stream: see col. 3, lines 24-28 and col. 10, lines 13-15).

Regarding claim 25, Lee shows the limitations of claim 21 as applied above, and further shows wherein the act of storing comprises: storing each of the temporally non-contiguous portions in at least two byte cache segments (comprising the data in a cache file); and storing the byte cache segments in the cache file. See col. 8, line 59 to col. 9, line 15.

Regarding claim 36, note that the various "means for" limitations will be treated under 35 USC 112, sixth paragraph.

Lee shows a system comprising: means for receiving a plurality of temporally non-contiguous portions of a streaming media file (comprising the processor and algorithm which receive the portions: see col. 3, line 67 to col. 4, line 6; col. 8, line 59 to col. 9, line 15; and Fig. 3A), at least two of the plurality of temporally non-contiguous portions being encoded at a different bit rate (comprising a first instant encoded at a first bit rate and a second, later instant

encoded at a different, "varied" bit rate, in a variable bit rate stream: see col. 3, lines 24-28 and

col. 10, lines 13-15); and means for associating and storing the plurality of temporally non-

contiguous portions in a data structure (comprising the processor and algorithm which associate

and store the portions into a cache: see Fig. 2 and col. 10, lines 32-36).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

Claims 5-10, 14-20, and 22-24 rejected under 35 U.S.C. 103(a) as being unpatentable

over Lee (US Patent No. 7,028,096) in view of Pinckney, III et al. (US Pub. No. 2002/0161911,

hereinafter "Pinckney").

Regarding claim 5, Lee shows the limitations of claim 1 as applied above, and further

shows storing media cache streams in a cache file (see col. 8, line 59 to col. 9, line 15), but does

not explicitly show "wherein the act of storing comprises: creating a plurality of media cache

streams, each media cache stream being associated with a unique bit rate; storing the first non-

contiguous portion in a media cache stream associated with the bit rate of the first non-

contiguous portion; storing the second non-contiguous portion in a media cache stream

associated with the bit rate of the second non-contiguous portion; and storing the media cache

streams in the cache file."

Pinckney shows:

- creating a plurality of media cache streams, each media cache stream being associated with a unique bit rate (see Figs. 9-10 and [0055]);

- storing a first non-contiguous portion in a media cache stream associated with the bit rate of the portion (see [0055] and [0058]);

- storing a second non-contiguous portion in a media cache stream associated with the bit rate of the second non-contiguous portion (see [0055]-[0058]); and

- storing the media cache streams in a cache file (see [0058]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Lee with the teachings of Pinckney in order to further improve the performance of the system (see Pinckey, [0054]).

Regarding claim 6, Lee shows the limitations of claim 1 as applied above, but does not explicitly show "wherein the act of storing comprises: creating a first media cache stream associated with the bit rate of the first non-contiguous portion; storing the first non-contiguous portion in a media cache segment of the first media segment stream; creating a second media cache stream associated with the bit rate of the second non-contiguous portion; storing the second non-contiguous portion in a media cache segment of the second media cache stream; creating a byte cache index segment and a byte cache data segment for each media cache segment; and storing the byte cache index segments and the byte cache data segments in the cache file."

Pinckney shows:

- creating a first media cache stream associated with the bit rate of a first non-contiguous portion (see Figs. 9-10 and [0055]);

- storing the first non-contiguous portion in a media cache segment of the first media segment stream (see [0055] and [0058]);

- creating a second media cache stream associated with the bit rate of a second non-contiguous portion (see Figs. 9-10 and [0055]);

- storing the second non-contiguous portion in a media cache segment of the second media cache stream (see [0055] and [0058]);

- creating a byte cache index segment (comprising a stream header) and a byte cache data segment (comprising a presentation unit) for each media cache segment (see Figs. 9-10 and [0055]); and

- storing the byte cache index segments and the byte cache data segments in the cache file (see [0058]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Lee with the teachings of Pinckney in order to further improve the performance of the system (see Pinckey, [0054]).

Regarding claim 7, Lee shows a method comprising:

- receiving a plurality of portions of a streaming media file, each portion being associated with a unique temporal section of the streaming media file (see col. 3, line 67 to col. 4, line 6; col. 8, line 59 to col. 9, line 15; and Fig. 3A);

- storing each portion in a media cache segment (comprising the data which makes up the cache file: see col. 8, line 59 to col. 9, line 15), and

- storing the media in a single cache file (see col. 8, line 59 to col. 9, line 15).

Lee does not explicitly show:

- creating a plurality of media cache streams, each media cache stream being associated with a unique bit rate; and

- storing each portion in a media cache segment of a media cache stream associated with a bit rate at which the portion was encoded, at least two of the portions being stored in media cache segments in different media cache streams.

Pinckey shows:

- creating a plurality of media cache streams, each media cache stream being associated with a unique bit rate (see [0055]); and

- storing each portion in a media cache segment of a media cache stream associated with a bit rate at which the portion was encoded, at least two of the portions being stored in media cache segments in different media cache streams (see Figs. 9-10 and [0055]-[0058]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Lee with the teachings of Pinckney in order to further improve the performance of the system (see Pinckey, [0054]).

Regarding claim 8, the combination shows the limitations of claim 7 as applied above, but does not explicitly show wherein the act of storing comprises: creating a byte cache index

segment (comprising a stream header) and a byte cache data segment (comprising a presentation unit) for each media cache segment; and storing the byte cache index segments and the byte cache data segments in the cache file (see Pinckey, [0055]).

Regarding claim 9, the combination shows the limitations of claim 7 as applied above, and further shows wherein the act of storing comprises: creating a byte cache index segment and a byte cache data segment for each segment; and serializing the byte cache index segments and the byte cache data segments in the cache file (see Pinckey, [0055]).

Regarding claim 10, the combination shows the limitations of claim 7 as applied above, and further shows wherein the cache file is stored in a non-volatile manner (note that a disk drive is a non-volatile data storage device: see Lee, col. 10, lines 32-36).

Regarding claim 14, the combination shows the limitations of claim 11 as applied above, and further shows wherein the caching module comprises: a media cache module operable: to store each of the plurality of temporally non-contiguous portions as a media cache segment in one of a plurality of media cache streams; and parse each media cache segment into a byte cache index segment and a byte cache data segment (see Pinckey, [0055]).

Regarding claim 15, Lee shows the limitations of claim 11 as applied above, but does not explicitly show "wherein the caching module comprises: a media cache module operable to: store each of the plurality of temporally non-contiguous portions as a media cache segment in

one of a plurality of media cache streams, each media cache stream being associated with a different bit rate; and parse each media cache segment into a byte cache index segment and a byte cache data segment; and a byte cache module operable to store the byte cache index segments and the byte cache data segments in the cache file."

Pinckney shows a media cache module operable to: store each of the plurality of temporally non-contiguous portions as a media cache segment in one of a plurality of media cache streams, each media cache stream being associated with a different bit rate; and parse each media cache segment into a byte cache index segment and a byte cache data segment; and a byte cache module operable to store the byte cache index segments and the byte cache data segments in the cache file. See Figs. 9-10 and [0055]-[0058].

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Lee with the teachings of Pinckney in order to further improve the performance of the system (see Pinckey, [0054]).

Regarding claim 16, Lee shows the limitations of claim 11 as applied above, but does not explicitly show "wherein the caching module comprises: a media cache module operable to: create a plurality of media cache streams, each media cache stream being associated with a unique bit rate; and store each temporally non-contiguous portion as a media cache segment in a media cache stream associated with a bite rate at which the temporally non- contiguous portion was encoded; and parse each media cache segment into a byte cache index segment and a byte cache data segment; and a byte cache module operable to: store the byte cache index segments and the byte cache data segments in the cache file."

Pinckney shows a media cache module operable to: create a plurality of media cache streams, each media cache stream being associated with a unique bit rate; and store each temporally non-contiguous portion as a media cache segment in a media cache stream associated with a bite rate at which the temporally non- contiguous portion was encoded; and parse each media cache segment into a byte cache index segment and a byte cache data segment; and a byte cache module operable to: store the byte cache index segments and the byte cache data segments in the cache file. See Figs. 9-10 and [0055]-[0058].

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Lee with the teachings of Pinckney in order to further improve the performance of the system (see Pinckey, [0054]).

Regarding claim 17, Lee shows the limitations of claim 11 as applied above, but does not explicitly show "wherein the two or more of the plurality of temporally non-contiguous portions include a first video portion encoded at a first bit rate, a second video portion encoded at a second bit rate, and an audio portion, and wherein the first video portion, the second video portion, and the audio portion are stored in different media cache streams."

Pinckney shows wherein temporally non-contiguous portions include a first video portion encoded at a first bit rate, a second video portion encoded at a second bit rate (see [0055]), and an audio portion (comprising an audio track: see [0055), and wherein the first video portion, the second video portion, and the audio portion are stored in different media cache streams (see Figs. 9-10 and [0055]-[0058]).

It would have been obvious to one of ordinary skill in the art at the time of the invention

to modify the system of Lee with the teachings of Pinckney in order to further improve the

performance of the system (see Pinckey, [0054]).

Regarding claim 18, Lee shows the limitations of claim 11 as applied above, but does not

explicitly show "wherein: the streaming media file includes different data types; and the caching

module is operable to: create a plurality of media cache streams, each media cache stream being

associated with a streamed media data type and a streamed media encoded bit rate; store each

temporally non-contiguous portion of received streamed media data in a media cache stream

associated with the streamed media data type and a streamed media encoded bit rate of the

temporally non-contiguous portion; and store the media cache streams in the cache file."

Pinckney shows the streaming media file includes different data types (comprising

different resolutions and audio tracks: see [0054]-[0055]); and the caching module is operable to:

create a plurality of media cache streams, each media cache stream being associated with a

streamed media data type and a streamed media encoded bit rate (note that the data files are

shredded into "all possible combinations of the component streams": see [0054]); store each

temporally non-contiguous portion of received streamed media data in a media cache stream

associated with the streamed media data type and a streamed media encoded bit rate of the

temporally non-contiguous portion (see Figs. 9-10 and [0055]); and store the media cache

streams in the cache file (see [0057]-[0058]).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Lee with the teachings of Pinckney in order to further improve the performance of the system (see Pinckey, [0054]).

Regarding claim 19, Lee shows the limitations of claim 11 as applied above, but does not explicitly show "wherein: the streaming media file includes different data types; and the caching module is operable to: create a plurality of media cache streams, each media cache stream being associated with a streamed media data type and a streamed media encoded bit rate; and store each temporally non-contiguous portion of received streamed media data as a media cache segment in a media cache stream associated with the streamed media data type and a streamed media encoded bit rate of the temporally non-contiguous portion; parse each media cache segment into a byte cache index segment and a byte cache data segment; and store the byte cache index segments and the byte cache data segments in the cache file."

Pinckney shows wherein: the streaming media file includes different data types; and the caching module is operable to: create a plurality of media cache streams, each media cache stream being associated with a streamed media data type and a streamed media encoded bit rate; and store each temporally non-contiguous portion of received streamed media data as a media cache segment in a media cache stream associated with the streamed media data type and a streamed media encoded bit rate of the temporally non-contiguous portion; parse each media cache segment into a byte cache index segment and a byte cache data segment; and store the byte cache index segments and the byte cache data segments in the cache file. See [0055]-[0058].

It would have been obvious to one of ordinary skill in the art at the time of the invention

to modify the system of Lee with the teachings of Pinckney in order to further improve the

performance of the system (see Pinckey, [0054]).

Regarding claim 20, Lee shows the limitations of claim 11 as applied above, but does not

explicitly show "wherein the caching module is operable to: store each of the plurality of

temporally non-contiguous portions as a media cache segment in one of a plurality of media

cache streams; create a segment/stream map specifying the media cache segment and stream in

which each temporally non-contiguous portion is stored; and parse each media cache segment

into a byte cache index segment and a byte cache data segment."

Pinckney shows a caching module operable to: store each of the plurality of temporally

non-contiguous portions as a media cache segment in one of a plurality of media cache streams

(see [0055]); create a segment/stream map specifying the media cache segment and stream in

which each temporally non-contiguous portion is stored (see [0063]); and parse each media

cache segment into a byte cache index segment and a byte cache data segment (see [0055).

It would have been obvious to one of ordinary skill in the art at the time of the invention

to modify the system of Lee with the teachings of Pinckney in order to further improve the

performance of the system (see Pinckey, [0054]).

Regarding claim 22, Lee shows the limitations of claim 21 as applied above, but does not

explicitly show "wherein the act of storing comprises: receiving a first video portion of the

streaming media file encoded at a first bit rate; storing the first video portion in a media cache

video stream associated with the first bit rate; receiving a second video portion of the streaming

media file encoded at a second bit rate; storing the second video portion in a media cache video

stream associated with the second bit rate; receiving a first audio portion of the streaming media

file; storing the first audio portion in a media cache audio stream; and storing the audio and

video media cache streams in a cache file."

Pinckney shows receiving a first video portion of the streaming media file encoded at a

first bit rate; storing the first video portion in a media cache video stream associated with the first

bit rate; receiving a second video portion of the streaming media file encoded at a second bit

rate; storing the second video portion in a media cache video stream associated with the second

bit rate; receiving a first audio portion of the streaming media file (i.e., an audio track); storing

the first audio portion in a media cache audio stream; and storing the audio and video media

cache streams in a cache file. See [0053]-[0058].

It would have been obvious to one of ordinary skill in the art at the time of the invention

to modify the system of Lee with the teachings of Pinckney in order to further improve the

performance of the system (see Pinckey, [0054]).

Regarding claim 23, Lee shows the limitations of claim 21 as applied above, but does not

explicitly show "wherein the act of storing comprises: receiving a first video portion of the

streaming media file encoded at a first bit rate; storing the first video portion in a media cache

video stream associated with the first bit rate; receiving a second video portion of the streaming

media file encoded at a second bit rate; storing the second video portion in a media cache video

stream associated with the second bit rate; receiving a third video portion of the streaming media

file encoded at a first bit rate, the a third video portion being temporally non-contiguous from the

first video portion; storing the third video portion in the media cache video stream associated

with the first bit rate; receiving a first audio portion of the streaming media file; and storing the

first audio portion in a media cache audio stream; and storing the audio and video media cache

streams in a cache file."

Pinckney shows receiving a first video portion of the streaming media file encoded at a

first bit rate; storing the first video portion in a media cache video stream associated with the first

bit rate (i.e., storing a portion 106a encoded at bit rate 3 in the appropriate segment: see Fig. 10

and [0058]); receiving a second video portion of the streaming media file encoded at a second bit

rate; storing the second video portion in a media cache video stream associated with the second

bit rate (i.e., storing a portion encoded at bit rate 2 in the appropriate segment: see Fig. 10 and

[0058); receiving a third video portion of the streaming media file encoded at a first bit rate, the a

third video portion being temporally non-contiguous from the first video portion; storing the

third video portion in the media cache video stream associated with the first bit rate (i.e., storing

a portion 106b encoded at bit rate 3 in the appropriate segment: see Fig. 10 and [0058]);

receiving a first audio portion of the streaming media file; and storing the first audio portion in a

media cache audio stream (see [0055]); and storing the audio and video media cache streams in a

cache file. See also [0053]-[0058].

It would have been obvious to one of ordinary skill in the art at the time of the invention

to modify the system of Lee with the teachings of Pinckney in order to further improve the

performance of the system (see Pinckey, [0054]).

Regarding claim 24, Lee shows the limitations of claim 21 as applied above, and further

shows wherein the act of storing comprises: storing each of the temporally non-contiguous

portions in at least two byte cache segments (comprising the data in a cache file); and storing the

byte cache segments in the cache file. See col. 8, line 59 to col. 9, line 15.

Lee does not explicitly show storing each of the temporally non-contiguous portions in a

unique media cache segment.

Pinckney shows storing each of the temporally non-contiguous portions in a unique

media cache segment (see Fig. 10 and [0058]).

It would have been obvious to one of ordinary skill in the art at the time of the invention

to modify the system of Lee with the teachings of Pinckney in order to further improve the

performance of the system (see Pinckey, [0054]).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Christopher Biagini whose telephone number is (571) 272-9743.

The examiner can normally be reached on weekdays from 8:30 AM to 5:00 PM..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Andrew Caldwell can be reached on (571) 272-3868. The fax phone number for the

organization where this application or proceeding is assigned is 571-273-8300.

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